Complete Summary

GUIDELINE TITLE

Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Primary Care. Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children. London (UK): National Institute for Health and Clinical Excellence; 2006 Dec. 2590 p.

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Obesity and overweight

GUIDELINE CATEGORY

Diagnosis
Management
Prevention
Risk Assessment
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Nutrition
Pediatrics

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Dietitians
Health Care Providers
Hospitals
Nurses
Occupational Therapists
Patients
Pharmacists
Physician Assistants
Physicians
Psychologists/Non-physician Behavioral Health Clinicians

GUIDELINE OBJECTIVE(S)

- To stem the rising prevalence of obesity and diseases associated with it
- To increase the effectiveness of interventions to prevent overweight and obesity
- To improve the care provided to adults and children with obesity, particularly in primary care

TARGET POPULATION

Adults and children with either a healthy weight or who are overweight or obese. This includes adults and children with established comorbidities, and those with or without risk factors for other medical conditions.

The guidance does not cover:

- Children aged less than 2 years
- The medical management of related medical conditions

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis and Assessment

1. Physical examination, patient and family history
2. Symptom assessment and cause of overweight/obesity
3. Body mass index (BMI)
4. Waist circumference
5. Classification of degree of overweight or obesity
6. Assessment of health risks
7. Assessment of comorbidities
8. Assessment of patient willingness to change and potential for improvement

Management/Treatment

1. Management of comorbid conditions
2. Lifestyle interventions
    - Participation in a weight management program
    - Consider patient's preference and social circumstance, level of risk and any comorbidities
    - Document discussion, providing copy of agreed goals and actions
    - Provision of information and support for patients and carers
3. Behavioral interventions, including:
    - Stimulus control
    - Self monitoring
    - Goal setting
    - Cognitive restructuring
    - Problem solving
4. Physical activity
5. Dietary advice
6. Pharmacological interventions
    - Orlistat
    - Sibutramine
    - Continued prescribing and withdrawal
7. Surgical interventions
    - Bariatric surgery
    - Revisional surgery
8. Long-term follow-up
9. Referral to a specialist

MAJOR OUTCOMES CONSIDERED

- Weight loss/control
- Side effects of pharmacological agents
- Complications of surgery
- Quality of life
- Cost-effectiveness of weight control interventions

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Literature Search and Evidence Reviews

The aim of the literature review was to identify the most relevant, published evidence in relation to the key clinical questions generated by the Guideline Development Group (GDG). Due to time constraints, full systematic reviews were not undertaken. However, the evidence reviews were undertaken using systematic, transparent approaches. The methods used by the clinical and public health project teams to search and review the literature varied to some extent,

but overall consistency was ensured, as outlined below. Details of all literature searches for clinical reviews are available from the National Collaborating Centre for Primary Care (NCC-PC); details of all specific searches for public health reviews are annexed with review tables. Further references were also suggested by the GDG. Evidence submitted by stakeholder organisations that was relevant to the key questions and was of at least the same level of evidence as that identified by the literature searches was also included.

Clinical

In line with the Scope, literature searches were undertaken to produce an evidence review on each of the following key topic areas:

- Identification and classification of children and adults who were overweight or obese
- Lifestyle interventions for the management of overweight and obesity
- Pharmacological interventions for the management of overweight and obesity
- Surgical interventions for the management of overweight and obesity
- Professionally led complementary medicine interventions for the management of overweight and obesity

Other more restricted reviews were undertaken for the remaining key clinical questions. The findings of each of the reviews are summarised in Sections 2 and 5 of the full length version of the original guideline document.

The specific search strategy for each topic area varied and was agreed with the Methods Team (with input from the GDG as necessary). A pragmatic approach was taken in defining the time period for searches and the included study types and outcome measures. The review parameters were agreed with the GDG and aimed to provide the best available evidence. Where specific parameters were applied, the details are reported in the evidence review.

In summary, reviews included:

- Systematic reviews from 1995 and single studies (predominantly randomised controlled trials [RCTs] and non-randomised trials). No time restriction was applied for the Adult reviews, but Child reviews were limited to studies published since 1985.
- Studies which reported outcome measures of weight change (in kilograms for adults, and using any appropriate measure for children).
- Studies with at least 12 months follow-up for adults, and 6 months for children

Updated searches were conducted for references published during the course of the guidance development and a final search date of 1st December 2005 was agreed across all of the reviews. Because of the amount of literature reviewed and identified in the Update searches, only those studies where evidence statements (and therefore recommendations) needed substantial revisions were added in detail. Where studies were relevant, but did not alter the evidence summaries, these were noted in the narrative.

Please refer to the full version of the original guideline document for "Public Health" search strategy information (See "Guideline Availability" field in this summary).

Health Economics

Separate clinical and public health reviews were conducted to assess the state of the economic evidence, given that in the main searches this evidence was limited. The reviews were undertaken by the health economists in each project team, liaising with other members of the project teams as appropriate. Given the limited economic evidence in the area it was decided to perform a broad search for evidence that was designed to identify information about the costs or resources used in providing a service or intervention and/or the benefits that could be attributed to it. No criteria for study design were imposed a priori. In this way the searches were not constrained to RCTs or formal economic evaluations. Papers included were limited to papers written in English and health economic information that could be generalised to UK on obesity prevention and management.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

1++ High-quality meta-analyses, systematic reviews of randomized controlled trials (RCTs), or RCTs with a very low risk of bias

1+ Well-conducted meta-analyses, systematic reviews of RCTs or RCTs with a low risk of bias)

1– Meta-analyses, systematic reviews of RCTs or RCTs with a high risk of bias[a]

2++ High-quality systematic reviews of non-RCT, case–control, cohort, controlled before-and-after study (CBA) or interrupted time series (ITS) studies

High quality non-RCT, case–control, cohort, CBA or ITS studies with a very low risk of confounding, bias or chance and a high probability that the relation is causal

2+ Well-conducted non-RCT, case–control, cohort, CBA or ITS studies with a very low risk of confounding, bias or chance and a moderate probability that the relation is causal

2– Non-RCT, case–control, cohort, CBA or ITS studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal[a]

3 Non-analytic studies (for example, case reports, case series)

4 Expert opinion, formal consensus

[a] Studies with a level of evidence '–' should not be used as a basis for making a recommendation.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Reviewing and Grading the Evidence

The titles and abstracts of records retrieved by the searches, suggested by the Guideline Development Group (GDG) or submitted by stakeholders were scanned for relevance to the key questions. Any potentially relevant publications were obtained in full text. These were reviewed to identify the most appropriate evidence to help answer the key questions and to ensure that the recommendations were based on the best available evidence. This process required four main tasks: selection of relevant studies; assessment of study quality; synthesis of the results; and grading of the evidence. The methods used by the project teams are outlined below.

For both groups, the primary outcome measure was body mass index (BMI), weight and/or waist circumference. Other reported anthropometric outcomes (such as skinfold thickness) were also considered where available. As discussed earlier, dietary and physical activity outcomes which may promote or protect against obesity were also considered key outcome measures within the public health reviews. In the clinical reviews, such measures were considered secondary outcomes, as were any relevant health indicators, such as measurements of blood pressure or blood cholesterol. Any additional information on factors which may have influenced the study results and had an impact on the wider implementation of an intervention, such as participants' age, ethnicity or social status; the staff involved in the intervention; dropout rates and payments or rewards given to participants, were recorded in the evidence tables considered by the GDG.

Review of the Clinical Evidence

The searches were first sifted by the systematic reviewers to exclude papers that did not relate to the scope of the guidance. The abstracts of the remaining papers were scrutinised for relevance to the key questions under consideration. Initially both systematic reviewers reviewed the abstracts independently. This proved impractical as the guidance progressed and the task was delegated to the systematic reviewer responsible for each section. The project lead was asked to review the abstracts in cases of uncertainty.

The papers chosen for inclusion were obtained and assessed for their methodological rigour against a number of criteria that determine the validity of the results. These criteria differed according to study type and were based on the checklists included in the National Institute for Clinical Excellence (NICE) Technical Manual, 'Guideline Development Methods - Information for National Collaborating Centres and Guideline Developers' (available from www.nice.org.uk and see also "Availability of Companion Documents" field in this summary). Critical appraisal was carried out by the systematic reviewers. Further appraisal was provided by the GDG members at and between the GDG meetings.

The data were extracted to standard evidence table templates. The findings were summarised by each systematic reviewer into a series of evidence statements and an accompanying narrative review. Where appropriate, a quantitative synthesis was conducted and checked by a consultant statistician.

Please refer to the full version of the original guideline document for "Review of the Public Health Evidence."

For each question, the highest level of evidence was selected. If a systematic review, meta-analysis or RCT existed in relation to the question being asked, studies of a weaker design were ignored. Where the evidence base was limited, questions were addressed by the identification of published expert narrative reviews by the project team and/or the GDG which formed the basis of discussion papers written either by the project lead or by a member of the GDG.

Additional Considerations for Clinical Management

Due to paucity of evidence for interventions in children, the GDG recommended that lower levels of evidence be considered throughout the reviews because of the limitations of the higher-level evidence available. Similarly in the reviews on surgical interventions for adults, longer-term case series (lower-level evidence) in addition to higher level RCTs were considered to provide the GDG with evidence on the long-term complications for each procedure.

Summary results and data are presented in the original full version guideline document. More detailed results and data are presented in the evidence tables in the original full version guideline document.

A number of key clinical questions could not appropriately be answered using a systematic review, for example, where the evidence base was very limited. These questions were addressed by the identification of 'published expert' narrative reviews by the project team and/or GDG which formed the basis of discussion papers written either by the project lead or the systematic reviewers.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus
Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The Guidance Development Group (GDG)

To address the broad nature of the task, the GDG consisted of two subgroups which functioned as two separate GDGs – one addressing clinical management and the other addressing prevention and public health issues. One Chair, a senior public health physician of national standing, identified jointly by the National Collaborating Centre for Primary Care (NCC-PC) and the Health Development Agency (HDA), oversaw the work of both groups.

Nominations for group members were invited from various stakeholder organisations, selected to ensure an appropriate mix of members. For the clinical subgroup this included healthcare professionals and patient representatives. For the public health subgroup this included health professionals and planning, local government, school, physical activity and consumer representatives. In view of the number of organisations that needed to contribute to the guidance, nominations were also received for co-opted experts. Each nominee was expected to serve as an individual expert in their own right and not as a representative of their parent organisation, although they were encouraged to keep their nominating organisation informed of the process. Co-optees contributed to aspects of the guidance development but did not sit on the GDG and were not involved in the final wording of recommendations. Group membership and co-optee details can be found in the preface to the guidance.

The GDG met on 14 occasions, at approximately 6-weekly intervals over 16 months to review the evidence identified by the project teams, to comment on its quality and completeness and to develop recommendations for practice based on the available evidence. In order to generate separate recommendations for adults and children, the clinical GDG was divided into adult and child subgroups. Each subgroup met to discuss the evidence reviews and to make preliminary recommendations.

Three joint GDG meetings were held to ensure consistency in the development of the clinical and public health guidance. The final recommendations were agreed by the full GDG. All GDG members made a formal 'Declaration of interests' at the start of the guidance development and provided updates throughout the development process.

Developing Key Questions

The first step in the development of the guidance was to refine the Scope into a series of key questions. The key questions formed the starting point for the subsequent evidence reviews and facilitated the development of recommendations by the GDG.

In relation to the clinical arm of the work, the key questions reflected the clinical care pathway for children and adults. For public health, the key questions reflected stages through the life course and/or settings providing opportunities for intervention. Furthermore, the public health questions specifically addressed (i) the evidence in relation to weight outcomes and (ii) the evidence in relation to diet and activity outcomes.

The key questions were developed by the GDG with assistance from the project teams. As necessary, the questions were refined into specific research questions by the project teams to aid literature searching, appraisal and synthesis. The full list of key questions is shown in Appendix 2 in the original full version guideline document.

It was clear from the outset that a full literature search and critical appraisal could not be undertaken for all key questions due to the time and resource limitations within the guidance development process. The GDG and project teams therefore agreed appropriate review parameters (inclusion and exclusion criteria) for each question or topic area.

Developing Recommendations

For each key question, recommendations were derived from the evidence summaries and statements presented to the GDG.

Each recommendation was linked to an evidence statement. The GDG was able to agree recommendations through informal consensus, taking cost effectiveness considerations into account. Where there was a lack of evidence of effectiveness, but the GDG was of the view that a recommendation was important based on the GDG members' own experience and/or the availability of UK-based corroborative evidence (such as surveys, case studies), this was highlighted as 'opinion of the GDG.'

Clinical

Clinical recommendations were drafted for the National Health Service (NHS) only.

Please refer to the full version of the original guideline document for information on developing "Public Health" recommendations.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

Two separate pieces of work on the cost effectiveness of interventions in clinical and public health settings were carried out. The literature review for both pieces of work identified a paucity of data on the cost effectiveness of interventions, particularly interventions undertaken in the UK and with more than 1-year follow-up. As a result, additional economic modelling was undertaken.

Although the health economic reviews and analyses were carried out by two different teams; both followed National Institute for Health and Clinical Excellence (NICE) methodologies, as set out in the Guidelines Development Methods manual (See "Availability of Companion Documents" in this summary) and liaised closely on the parameters used in their analyses, such as on diseases to include and quality-adjust life year (QALY) scores, so that both the clinical and public health work were consistent and complementary.

Please refer to section 6, Health Economics of the original full-length guideline document for a full description of the cost-effectiveness of clinical and public health interventions and the results of the cost analyses performed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guideline was validated through two consultations.

1. The first draft of the guideline (The full guideline, National Institute for Clinical Excellence [NICE] guideline and Quick Reference Guide) were consulted with Stakeholders and comments were considered by the Guideline Development Group (GDG)
2. The final consultation draft of the Full guideline, the NICE guideline and the Information for the Public were submitted to stakeholders for final comments.

The final draft was submitted to the Guideline Review Panel for review prior to publication.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note: (*Adult*) denotes a recommendation for adults only; (*Children*) denotes a recommendation for children only. Refer to original full length guideline document for Public Health recommendations.

Generic Principles of Care

Adults and Children

Regular, non-discriminatory long-term follow-up by a trained professional should be offered. Continuity of care in the multidisciplinary team should be ensured through good record keeping.

Adults

Any specialist setting should be equipped for treating people who are severely obese with, for example, special seating and adequate weighing and monitoring equipment. Hospitals should have access to specialist equipment – such as larger scanners and beds – needed when providing general care for people who are severely obese.

The choice of any intervention for weight management must be made through negotiation between the person and their health professional.

The components of the planned weight-management programme should be tailored to the person's preferences, initial fitness, health status and lifestyle.

Children

The care of children and young people should be coordinated around their individual and family needs and should comply with national core standards as defined in the Children's national service frameworks (NSFs) for England and Wales.

The overall aim should be to create a supportive environment that helps overweight or obese children and their families make lifestyle changes.

Decisions on the approach to management of a child's overweight or obesity (including assessment and agreement of goals and actions) should be made in partnership with the child and family, and be tailored to the needs and preferences of the child and the family.

Interventions for childhood overweight and obesity should address lifestyle within the family and in social settings.

Parents (or carers) should be encouraged to take the main responsibility for lifestyle changes for overweight or obese children, especially if they are younger than 12 years. However, the age and maturity of the child and the preferences of the child and the parents should be taken into account.

Identification and Classification of Overweight and Obesity

Healthcare professionals should use their clinical judgement to decide when to measure a person's height and weight. Opportunities include registration with a general practice, consultation for related conditions (such as type 2 diabetes and cardiovascular disease) and other routine health checks.

Measures of Overweight or Obesity

Adults

Body mass index (BMI) should be used as a measure of overweight in adults, but needs to be interpreted with caution because it is not a direct measure of adiposity.

Waist circumference may be used, in addition to BMI, in people with a BMI less than 35 kg/m^2.

Children

BMI (adjusted for age and gender) is recommended as a practical estimate of overweight in children and young people, but needs to be interpreted with caution because it is not a direct measure of adiposity.

Waist circumference is not recommended as a routine measure but may be used to give additional information on the risk of developing other long-term health problems.

Adults and Children

Bioimpedance is not recommended as a substitute for BMI as a measure of general adiposity.

Classification of Overweight or Obesity

Adults

The degree of overweight or obesity in adults should be defined as follows.

Classification	**BMI (kg/m^2)**
Healthy weight	18.5–24.9
Overweight	25–29.9
Obesity I	30–34.9
Obesity II	35–39.9
Obesity III	40 or more

BMI may be a less accurate measure of adiposity in adults who are highly muscular, so BMI should be interpreted with caution in this group. Some other population groups, such as Asians and older people, have comorbidity risk factors that would be of concern at different BMIs (lower for Asian adults and higher for older people). Healthcare professionals should use clinical judgement when considering risk factors in these groups, even in people not classified as overweight or obese using the classification in recommendation 1.2.2.7 of the full version of the original guideline document.

Assessment of the health risks associated with overweight and obesity in adults should be based on BMI and waist circumference as follows.

BMI Classification	**Waist Circumference**		
	Low	**High**	**Very High**
Overweight	No increased risk	Increased risk	High risk
Obesity I	Increased risk	High risk	Very high risk
For men, waist circumference of less than 94 cm is low, 94–102 cm is high and more than 102 cm is very high For women, waist circumference of less than 80 cm is low, 80–88 cm is high and more than 88 cm is very high			

Adults should be given information about their classification of clinical obesity and the impact this has on risk factors for developing other long-term health problems.

The level of intervention to discuss with the patient initially should be based as follows:

BMI Classification	Waist Circumference			Comorbidities Present
	Low	High	Very High	
Overweight				
Obesity I				
Obesity II				
Obesity III				

	General advice on healthy weight and lifestyle
	Diet and physical activity
	Diet and physical activity; consider drugs
	Diet and physical activity; consider drugs; consider surgery

Note that the level of intervention should be higher for patients with comorbidities (see section below under "Assessment"), regardless of their waist circumference. The approach should be adjusted as needed, depending on the patient's clinical need and potential to benefit from losing weight.

Children

BMI measurement in children and young people should be related to the UK 1990 BMI charts* to give age- and gender-specific information.

*The Guideline Development Group considered that there was a lack of evidence to support specific cut-offs in children. However, the recommended pragmatic indicators for action are the 91st and 98th centiles (overweight and obese, respectively).

Tailored clinical intervention should be considered for children with a BMI at or above the 91st centile, depending on the needs of the individual child and family.

Assessment of comorbidity should be considered for children with a BMI at or above the 98th centile.

Assessment

This section should be read in conjunction with the National Institute for Health and Clinical Excellence (NICE) guideline on eating disorders (NICE clinical guideline no. 9; available from www.nice.org.uk/CG009), particularly if a person who is not overweight asks for advice on losing weight.

Adults and Children

After making an initial assessment (see specific recommendations below in this section under "Adults" and "Children"), healthcare professionals should use clinical judgement to investigate comorbidities and other factors in an appropriate level of detail, depending on the person, the timing of the assessment, the degree of overweight or obesity and the results of previous assessments.

Any comorbidities should be managed when they are identified, rather than waiting until the person has lost weight.

People who are not yet ready to change should be offered the chance to return for further consultations when they are ready to discuss their weight again and willing or able to make lifestyle changes. They should also be given information on the benefits of losing weight, healthy eating and increased physical activity.

Surprise, anger, denial or disbelief may diminish people's ability or willingness to change. Stressing that obesity is a clinical term with specific health implications, rather than a question of how you look, may help to mitigate this.

During the consultation it would be helpful to:

- Assess the person's view of their weight and the diagnosis, and possible reasons for weight gain
- Explore eating patterns and physical activity levels
- Explore any beliefs about eating and physical activity and weight gain that are unhelpful if the person wants to lose weight
- Be aware that people from certain ethnic and socioeconomic backgrounds may be at greater risk of obesity, and may have different beliefs about what is a healthy weight and different attitudes towards weight management
- Find out what the patient has already tried and how successful this has been, and what they learned from the experience
- Assess readiness to adopt changes
- Assess confidence in making changes

Patients and their families and/or carers should be given information on the reasons for tests, how the tests are performed and their results and meaning.

If necessary, another consultation should be offered to fully explore the options for treatment or discuss test results.

Adults

After appropriate measurements have been taken and the issues of weight raised with the person, an assessment should be done, covering:

- Presenting symptoms and underlying causes of overweight and obesity
- Eating behaviour
- Comorbidities (such as type 2 diabetes, hypertension, cardiovascular disease, osteoarthritis, dyslipidaemia and sleep apnoea) and risk factors, using the following tests – lipid profile, blood glucose (both preferably fasting) and blood pressure measurement
- Lifestyle – diet and physical activity
- Psychosocial distress and lifestyle, environmental, social and family factors – including family history of overweight and obesity and comorbidities
- Willingness and motivation to change
- Potential of weight loss to improve health
- Psychological problems
- Medical problems and medication

Referral to specialist care should be considered if:

- The underlying causes of overweight and obesity need to be assessed
- The person has complex disease states and/or needs that cannot be managed adequately in either primary or secondary care
- Conventional treatment has failed in primary or secondary care
- Drug therapy is being considered for a person with a BMI more than 50 kg/m^2
- Specialist interventions (such as a very-low-calorie diet for extended periods) may be needed
- Surgery is being considered

Children

After measurements have been taken and the issue of weight raised with the child and family, an assessment should be done, covering:

- Presenting symptoms and underlying causes of overweight and obesity
- Willingness and motivation to change
- Comorbidities (such as hypertension, hyperinsulinaemia, dyslipidaemia, type 2 diabetes, psychosocial dysfunction and exacerbation of conditions such as asthma) and risk factors
- Psychosocial distress, such as low self-esteem, teasing and bullying
- Family history of overweight and obesity and comorbidities
- Lifestyle – diet and physical activity
- Environmental, social and family factors that may contribute to overweight and obesity and the success of treatment
- Growth and pubertal status

Referral to an appropriate specialist should be considered for children who are overweight or obese and have significant comorbidity or complex needs (for example, learning or educational difficulties).

In secondary care, the assessment of overweight and/or obese children and young people should include assessment of associated comorbidities and possible aetiology, and investigations such as:

- Blood pressure measurement
- Fasting lipid profile
- Fasting insulin and glucose levels
- Liver function
- Endocrine function

These tests need to be performed, and results interpreted, in the context of the degree of overweight and obesity, the child's age, history of comorbidities, possible genetic causes and any family history of metabolic disease related to overweight and obesity.

Arrangements for transitional care should be made for young people who are moving from paediatric to adult services.

Lifestyle Interventions

The recommendations in this section deal with lifestyle changes for people actively trying to lose weight; recommendations about lifestyle changes and self-management strategies for people wishing to maintain a healthy weight can be found in section 1.1.1 of the full version of the original guideline document.

General

Adults and Children

Multicomponent interventions are the treatment of choice. Weight management programmes should include behaviour change strategies (see recommendations below under "Behavioural Interventions") to increase people's physical activity levels or decrease inactivity, improve eating behaviour and the quality of the person's diet and reduce energy intake.

When choosing treatments, the following factors should be considered:

- The person's individual preference and social circumstance and the experience and outcome of previous treatments (including whether there were any barriers)
- Their level of risk, based on BMI and waist circumference (see recommendations above, under "Classification of Overweight and Obesity")
- Any comorbidities

The results of the discussion should be documented, and a copy of the agreed goals and actions should be kept by the person and the healthcare professional or put in the notes as appropriate. Healthcare professionals should tailor support to meet the person's needs over the long term.

The level of support offered should be determined by the person's needs, and be responsive to changes over time.

Any healthcare professional involved in the delivery of interventions for weight management should have relevant competencies and have undergone specific training.

Information should be provided in formats and languages that are suited to the person. When talking to patients and carers, healthcare professionals should use everyday, jargon-free language and explain any technical terms. Consideration should be given to the person's:

- Age and stage of life
- Gender
- Cultural needs and sensitivities
- Ethnicity
- Social and economic circumstances
- Physical and mental disabilities

To encourage the patient through the difficult process of changing established behaviour, healthcare professionals should praise successes – however small – at every opportunity.

People who are overweight or obese, and their families and/or carers, should be given relevant information on:

- Overweight and obesity in general, including related health risks
- Realistic targets for weight loss; for adults the targets are usually
    - Maximum weekly weight loss of 0.5–1 kg*
    - Aim to lose 5–10% of original weight
- The distinction between losing weight and maintaining weight loss, and the importance of developing skills for both; the change from losing weight to maintenance typically happens after 6–9 months of treatment
- Realistic targets for outcomes other than weight loss, such as increased physical activity, healthier eating
- Diagnosis and treatment options
- Healthy eating in general (see appendix D in the full version of the original guideline document)
- Medication and side effects
- Surgical treatments
- Self care
- Voluntary organisations and support groups and how to contact them

*Based on the British Dietetic Association 'Weight Wise' Campaign. Greater rates of weight loss may be appropriate in some cases, but this should be undertaken only under expert supervision.

There should be adequate time in the consultation to provide information and answer questions.

If a person (or their family or carers) does not want to do anything at this time, healthcare professionals should explain that advice and support will be available in the future whenever they need it. Contact details should be provided, so that the person can make contact when they are ready.

Adults

The person's partner or spouse should be encouraged to support any weight management programme.

The level of intensity of the intervention should be based on the level of risk and the potential to gain health benefits (see recommendation above, under "Classification of Overweight and Obesity").

Children

Single-strategy approaches to managing weight are not recommended for children or young people.

The aim of weight management programmes for children and young people may be either weight maintenance or weight loss, depending on their age and stage of growth.

Parents of overweight or obese children and young people should be encouraged to lose weight if they are also overweight or obese.

Behavioural Interventions

Adults and Children

Any behavioural intervention should be delivered with the support of an appropriately trained professional.

Adults

Behavioural interventions for adults should include the following strategies, as appropriate for the person:

- Self monitoring of behaviour and progress
- Stimulus control
- Goal setting
- Slowing rate of eating
- Ensuring social support
- Problem solving
- Assertiveness
- Cognitive restructuring (modifying thoughts)
- Reinforcement of changes
- Relapse prevention
- Strategies for dealing with weight regain

Children

Behavioural interventions for children should include the following strategies, as appropriate for the child:

- Stimulus control
- Self monitoring
- Goal setting
- Rewards for reaching goals
- Problem solving

Although not strictly defined as behavioural techniques, giving praise and encouraging parents to role-model desired behaviours are also recommended.

Physical Activity

Adults

Adults should be encouraged to increase their physical activity even if they do not lose weight as a result, because of the other health benefits physical activity can bring, such as reduced risk of type 2 diabetes and cardiovascular disease. Adults should be encouraged to do at least 30 minutes of at least moderate-intensity physical activity on 5 or more days a week. The activity can be in one session or several lasting 10 minutes or more.

To prevent obesity, most people should be advised they may need to do 45–60 minutes of moderate-intensity activity a day, particularly if they do not reduce their energy intake. People who have been obese and have lost weight should be advised they may need to do 60–90 minutes of activity a day to avoid regaining weight.

Adults should be encouraged to build up to the recommended levels for weight maintenance, using a managed approach with agreed goals.

Recommended types of physical activity include:

- Activities that can be incorporated into everyday life, such as brisk walking, gardening or cycling
- Supervised exercise programmes
- Other activities, such as swimming, aiming to walk a certain number of steps each day, or stair climbing

Any activity should take into account the person's current physical fitness and ability.

People should also be encouraged to reduce the amount of time they spend inactive, such as watching television or using a computer.

Children

Children and young people should be encouraged to increase their physical activity even if they do not lose weight as a result, because of the other health benefits exercise can bring, such as reduced risk of type 2 diabetes and cardiovascular disease. Children should be encouraged to do at least 60 minutes of at least moderate activity each day. The activity can be in one session or several lasting 10 minutes or more.

Children who are already overweight may need to do more than 60 minutes' activity.

Children should be encouraged to reduce sedentary behaviours, such as sitting watching television, using a computer or playing video games.

Children should be given the opportunity and support to do more exercise in their daily lives (such as walking, cycling, using the stairs and active play). The choice of activity should be made with the child, and be appropriate to their ability and confidence.

Children should be given the opportunity and support to do more regular, structured physical activity, such as football, swimming or dancing. The choice of activity should be made with the child, and be appropriate to their ability and confidence.

Dietary Advice

Adults and Children

Dietary changes should be individualised, tailored to food preferences and allow for flexible approaches to reducing calorie intake.

Unduly restrictive and nutritionally unbalanced diets should not be used, because they are ineffective in the long term and can be harmful.

People should be encouraged to improve their diet even if they do not lose weight, because there can be other health benefits.

Adults

The main requirement of a dietary approach to weight loss is that total energy intake should be less than energy expenditure.

Diets that have a 600 kcal/day deficit (that is, they contain 600 kcal less than the person needs to stay the same weight) or that reduce calories by lowering the fat content (low-fat diets), in combination with expert support and intensive follow-up, are recommended for sustainable weight loss.

Low-calorie diets (1000–1600 kcal/day) may also be considered, but are less likely to be nutritionally complete.

Very-low-calorie diets (less than 1000 kcal/day) may be used for a maximum of 12 weeks continuously, or intermittently with a low-calorie diet (for example for 2–4 days a week), by people who are obese and have reached a plateau in weight loss.

Any diet of less than 600 kcal/day should be used only under clinical supervision.

In the longer term, people should move towards eating a balanced diet, consistent with other healthy eating advice.

Children

A dietary approach alone is not recommended. It is essential that any dietary recommendations are part of a multicomponent intervention.

Any dietary changes should be age appropriate and consistent with healthy eating advice.

For overweight and obese children and adolescents, total energy intake should be below their energy expenditure. Changes should be sustainable.

Pharmacological Interventions

This section contains recommendations that update the NICE technology appraisals on orlistat and sibutramine (*NICE technology appraisal guidance* no. 22 and *NICE technology appraisal guidance* no. 31); see section 6 of the full length original guideline document for details.

General: Indications and Initiation

Adults and Children

Pharmacological treatment should be considered only after dietary, exercise and behavioural approaches have been started and evaluated.

Adults

Drug treatment should be considered for patients who have not reached their target weight loss or have reached a plateau on dietary, activity and behavioural changes alone.

The decision to start drug treatment, and the choice of drug, should be made after discussing with the patient the potential benefits and limitations, including the mode of action, adverse effects and monitoring requirements, and their potential impact on the patient's motivation. When drug treatment is prescribed, arrangements should be made for appropriate healthcare professionals to offer information, support and counselling on additional diet, physical activity and behavioural strategies. Information on patient support programmes should also be provided.

Prescribing should be in accordance with the drug's summary of product characteristics.

Children

Drug treatment is not generally recommended for children younger than 12 years.

In children younger than 12 years, drug treatment may be used only in exceptional circumstances, if severe life-threatening comorbidities (such as sleep apnoea or raised intracranial pressure) are present. Prescribing should be started and monitored only in specialist paediatric settings. (At the time of publication [December 2006], orlistat and sibutramine do not have UK marketing authorisation for use in children. Prescribers should be aware of the special considerations and issues when prescribing for children.)

In children aged 12 years and older, treatment with orlistat or sibutramine is recommended only if physical comorbidities (such as orthopaedic problems or sleep apnoea) or severe psychological comorbidities are present. Treatment should be started in a specialist paediatric setting, by multidisciplinary teams with experience of prescribing in this age group.

Orlistat or sibutramine should be prescribed for obesity in children only by a multidisciplinary team with expertise in:

- Drug monitoring
- Psychological support
- Behavioural interventions
- Interventions to increase physical activity
- Interventions to improve diet

Orlistat and sibutramine should be prescribed for young people only if the prescriber is willing to submit data to the proposed national registry on the use of these drugs in young people (see also Section 8 of the full length original guideline document).

After drug treatment has been started in specialist care, it may be continued in primary care if local circumstances and/or licensing allow.

Continued Prescribing and Withdrawal

Adults and Children

Pharmacological treatment may be used to maintain weight loss, rather than continue to lose weight.

If there is concern about the adequacy of micronutrient intake, a supplement providing the reference nutrient intake for all vitamins and minerals should be considered, particularly for vulnerable groups such as older people (who may be at risk of malnutrition) and young people (who need vitamins and minerals for growth and development).

People whose drug treatment is being withdrawn should be offered support to help maintain weight loss, because their self-confidence and belief in their ability to make changes may be low if they did not reach their target weight.

Adults

Regular review is recommended to monitor the effect of drug treatment and to reinforce lifestyle advice and adherence.

Withdrawal of drug treatment should be considered in people who do not lose enough weight (see specific recommendations under "Orlistat" and "Sibutramine" below).

Rates of weight loss may be slower in people with type 2 diabetes, so less strict goals than those for people without diabetes may be appropriate. These goals should be agreed with the person and reviewed regularly.

Children

If orlistat or sibutramine is prescribed for children, a 6–12-month trial is recommended, with regular review to assess effectiveness, adverse effects and adherence.

Orlistat

Adults

Orlistat should be prescribed only as part of an overall plan for managing obesity in adults who meet one of the following criteria:

- A BMI of 28.0 kg/m^2 or more with associated risk factors
- A BMI of 30.0 kg/m^2 or more

Therapy should be continued beyond 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment. (See also recommendation above for advice on targets for people with type 2 diabetes.)

The decision to use drug treatment for longer than 12 months (usually for weight maintenance) should be made after discussing potential benefits and limitations with the patient.

The coprescribing of orlistat with other drugs aimed at weight reduction is not recommended.

Sibutramine

Adults

Sibutramine should be prescribed only as part of an overall plan for managing obesity in adults who meet one of the following criteria:

- A BMI of 27.0 kg/m^2 or more and other obesity-related risk factors such as type 2 diabetes or dyslipidaemia
- A BMI of 30.0 kg/m^2 or more

Sibutramine should not be prescribed unless there are adequate arrangements for monitoring both weight loss and adverse effects (specifically pulse and blood pressure).

Therapy should be continued beyond 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment. (See also recommendation above for advice on targets for people with type 2 diabetes.)

Treatment is not currently recommended beyond the licensed duration of 12 months.

The coprescribing of sibutramine with other drugs aimed at weight reduction is not recommended.

Surgical Interventions

This section updates the NICE technology appraisal on surgery for people with morbid obesity (NICE technology appraisal guidance no. 46); see section 6 of the full length original guideline document for details.

Adults and Children

Bariatric surgery is recommended as a treatment option for people with obesity if all of the following criteria are fulfilled:

- They have a BMI of 40 kg/m^2 or more, or between 35 kg/m^2 and 40 kg/m^2 and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight
- All appropriate non-surgical measures have been tried but have failed to achieve or maintain adequate, clinically beneficial weight loss for at least 6 months
- The person has been receiving or will receive intensive management in a specialist obesity service
- The person is generally fit for anaesthesia and surgery
- The person commits to the need for long-term follow-up

See recommendations below for additional criteria to use when assessing children and adults.

Severely obese people who are considering surgery to aid weight reduction (and their families as appropriate) should discuss in detail with the clinician responsible for their treatment (that is, the hospital specialist and/or bariatric surgeon) the potential benefits and longer-term implications of surgery, as well as the associated risks, including complications and perioperative mortality.

The choice of surgical intervention should be made jointly by the person and the clinician, and taking into account:

- The degree of obesity
- Comorbidities
- The best available evidence on effectiveness and long-term effects
- The facilities and equipment available
- The experience of the surgeon who would perform the operation

Regular, specialist postoperative dietetic monitoring should be provided, and should include:

- Information on the appropriate diet for the bariatric procedure
- Monitoring of the person's micronutrient status

- Information on patient support groups
- Individualised nutritional supplementation, support and guidance to achieve long-term weight loss and weight maintenance

Arrangements for prospective audit should be made, so that the outcomes and complications of different procedures, the impact on quality of life and nutritional status, and the effect on comorbidities can be monitored in both the short and the long term.

The surgeon in the multidisciplinary team should:

- Have undertaken a relevant supervised training programme
- Have specialist experience in bariatric surgery
- Be willing to submit data for a national clinical audit scheme

Adults

In addition to the criteria listed in recommendation 1.2.6.1 of the full length original guideline document, bariatric surgery is also recommended as a first-line option (instead of lifestyle interventions or drug treatment) for adults with a BMI of more than 50 kg/m^2 in whom surgical intervention is considered appropriate.

In people for whom surgery is recommended as a first-line option, orlistat or sibutramine can be used to maintain or reduce weight before surgery if it is considered that the waiting time for surgery is excessive.

Surgery for obesity should be undertaken only by a multidisciplinary team that can provide:

- Preoperative assessment, including a risk–benefit analysis that includes preventing complications of obesity, and specialist assessment for eating disorder(s)
- Providing information on the different procedures, including potential weight loss and associated risks
- Regular postoperative assessment, including specialist dietetic and surgical follow-up
- Management of comorbidities
- Psychological support before and after surgery
- Providing information on, or access to, plastic surgery (such as apronectomy) where appropriate
- Access to suitable equipment, including scales, theatre tables, Zimmer frames, commodes, hoists, bed frames, pressure-relieving mattresses and seating suitable for patients undergoing bariatric surgery, and staff trained to use them

Surgery should be undertaken only after a comprehensive preoperative assessment of any psychological or clinical factors that may affect adherence to postoperative care requirements, such as changes to diet.

Revisional surgery (if the original operation has failed) should be undertaken only in specialist centres by surgeons with extensive experience because of the high rate of complications and increased mortality.

Children

Surgical intervention is not generally recommended in children or young people.

Bariatric surgery may be considered for young people only in exceptional circumstances, and if they have achieved or nearly achieved physiological maturity.

Surgery for obesity should be undertaken only by a multidisciplinary team that can provide paediatric expertise in:

- Preoperative assessment, including a risk–benefit analysis that includes preventing complications of obesity, and specialist assessment for eating disorder(s)
- Information on the different procedures, including potential weight loss and associated risks
- Regular postoperative assessment, including specialist dietetic and surgical follow-up
- Management of comorbidities
- Psychological support before and after surgery
- Information on or access to plastic surgery (such as apronectomy) where appropriate
- Access to suitable equipment, including scales, theatre tables, Zimmer frames, commodes, hoists, bed frames, pressure-relieving mattresses and seating suitable for patients undergoing bariatric surgery, and staff trained to use them

Surgical care and follow-up should be coordinated around the young person and their family's needs and should comply with national core standards as defined in the Children's NSFs for England and Wales.

All young people should have had a comprehensive psychological, education, family and social assessment before undergoing bariatric surgery.

A full medical evaluation including genetic screening or assessment should be made before surgery to exclude rare, treatable causes of the obesity.

CLINICAL ALGORITHM(S)

The following clinical algorithms are provided in the original guideline document:

- Clinical care pathway for children
- Clinical care pathway for adults

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate assessment and management of obesity in adults and children and decrease in morbidity and mortality associated with obesity

POTENTIAL HARMS

- Adverse effects of pharmacological therapy
- Complications associated with surgery

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer. Public health professionals, local government officials and elected members, school governors, head teachers, those with responsibility for early years services, and employers in the public, private and voluntary sectors should take this guidance into account when carrying out their professional, voluntary or managerial duties.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The National Health Service (NHS)

The Healthcare Commission assesses the performance of NHS organisations in meeting core and developmental standards set by the Department of Health in 'Standards for better health', issued in July 2004. Implementation of clinical guidelines forms part of the developmental standard D2. Core standard C5 says that national agreed guidance should be taken into account when NHS organisations are planning and delivering care.

National Institute for Health and Clinical Excellence (NICE) has developed tools to help organisations implement this guidance (listed below). These are available on

their website (http://www.nice.org.uk/CG043 [see also the "Availability of Companion Documents field"]).

- Slides highlighting key messages for local discussion.
- Costing tools
    - Costing report to estimate the national savings and costs associated with implementation.
    - Costing template to estimate the local costs and savings involved.
- A signposting document on how to put the guidance into practice and national initiatives that support this locally.
- Audit criteria to monitor local practice.

Other Audiences and Settings

The guidance also makes recommendations for the following audiences and settings:

- Public bodies – including local authorities; government, government agencies and arm's length bodies; schools, colleges and childcare in early years settings; forces, prisons and police service
- Private and voluntary organisations
    - Large employers (more than 250 employees)
    - Small and medium employers (less than 50 and less than 250 employees, respectively)
- The general public including parents, and the media and others providing advice for different population groups

Key Priorities for Implementation

- The prevention and management of obesity should be a priority for all, because of the considerable health benefits of maintaining a healthy weight and the health risks associated with overweight and obesity.

Public Health

NHS

- Managers and health professionals in all primary care settings should ensure that preventing and managing obesity is a priority, at both strategic and delivery levels. Dedicated resources should be allocated for action.

Local Authorities and Partners

- Local authorities should work with local partners, such as industry and voluntary organisations, to create and manage more safe spaces for incidental and planned physical activity, addressing as a priority any concerns about safety, crime and inclusion, by:
    - Providing facilities and schemes such as cycling and walking routes, cycle parking, area maps and safe play areas

- Making streets cleaner and safer, through measures such as traffic calming, congestion charging, pedestrian crossings, cycle routes, lighting and walking schemes
- Ensuring buildings and spaces are designed to encourage people to be more physically active (for example, through positioning and signing of stairs, entrances and walkways)
- Considering in particular people who require tailored information and support, especially inactive, vulnerable groups

Early Years Settings

- Nurseries and other childcare facilities should:
    - Minimise sedentary activities during play time, and provide regular opportunities for enjoyable active play and structured physical activity sessions
    - Implement Department for Education and Skills, Food Standards Agency and Caroline Walker Trust guidance on food procurement and healthy catering.

Schools

- Head teachers and chairs of governors, in collaboration with parents and pupils, should assess the whole school environment and ensure that the ethos of all school policies helps children and young people to maintain a healthy weight, eat a healthy diet and be physically active, in line with existing standards and guidance. This includes policies relating to building layout and recreational spaces, catering (including vending machines) and the food and drink children bring into school, the taught curriculum (including PE), school travel plans and provision for cycling, and policies relating to the National Healthy Schools Programme and extended schools.

Workplaces

- Workplaces should provide opportunities for staff to eat a healthy diet and be physically active, through:
    - Active and continuous promotion of healthy choices in restaurants, hospitality, vending machines and shops for staff and clients, in line with existing Food Standards Agency guidance
    - Working practices and policies, such as active travel policies for staff and visitors
    - A supportive physical environment, such as improvements to stairwells and providing showers and secure cycle parking
    - Recreational opportunities, such as supporting out-of-hours social activities, lunchtime walks and use of local leisure facilities.

Self-help, Commercial and Community Settings

- Primary care organisations and local authorities should recommend to patients, or consider endorsing, self-help, commercial and community weight management programmes only if they follow best practice (see recommendation 1.1.7.1 in the original full guideline document for details of best practice standards).

Clinical Care

Children and Adults

- Multicomponent interventions are the treatment of choice. Weight management programmes should include behaviour change strategies to increase people's physical activity levels or decrease inactivity, improve eating behaviour and the quality of the person's diet and reduce energy intake.

Children

- Interventions for childhood overweight and obesity should address lifestyle within the family and in social settings.
- Body mass index (BMI) (adjusted for age and gender) is recommended as a practical estimate of overweight in children and young people, but needs to be interpreted with caution because it is not a direct measure of adiposity.
- Referral to an appropriate specialist should be considered for children who are overweight or obese and have significant comorbidity or complex needs (for example, learning or educational difficulties).

Adults

- The decision to start drug treatment, and the choice of drug, should be made after discussing with the patient the potential benefits and limitations, including the mode of action, adverse effects and monitoring requirements and their potential impact on the patient's motivation. When drug treatment is prescribed, arrangements should be made for appropriate health professionals to offer information, support and counselling on additional diet, physical activity and behavioural strategies. Information about patient support programmes should also be provided.
- Bariatric surgery is recommended as a treatment option for adults with obesity if all of the following criteria are fulfilled:
    - They have a BMI of 40 kg/m^2 or more, or between 35 kg/m^2 and 40 kg/m^2 and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight.
    - All appropriate non-surgical measures have been tried but have failed to achieve or maintain adequate, clinically beneficial weight loss for at least 6 months.
    - The person has been receiving or will receive intensive management in a specialist obesity service.
    - The person is generally fit for anaesthesia and surgery.
    - The person commits to the need for long-term follow-up.
- Bariatric surgery is also recommended as a first-line option (instead of lifestyle interventions or drug treatment) for adults with a BMI of more than 50 kg/m^2 in whom surgical intervention is considered appropriate.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Clinical Algorithm
Patient Resources

Quick Reference Guides/Physician Guides
Resources
Slide Presentation

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Primary Care. Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children. London (UK): National Institute for Health and Clinical Excellence; 2006 Dec. 2590 p.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Dec

GUIDELINE DEVELOPER(S)

National Collaborating Centre for Primary Care - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

National Institute for Health and Clinical Excellence (NICE)

GUIDELINE COMMITTEE

Guideline Development Group (GDG)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Guideline Development Group Members: Professor James McEwen (Chair) Emeritus Professor in Public Health and Honorary Senior Research Fellow, University of Glasgow; Mrs Mary Amos (from October 2005) Health and Social Policy Manager at Eastleigh Borough Council and South West Hampshire Primary Care Trusts Alliance; Miss Elizabeth Biggs, Hertfordshire Healthy Schools Co-ordinator and East of England Regional Co-ordinator; Dr Mary Corcoran, Director of Public Health, Gedling Primary Care Trust; Dr Sara Kirk, Principal Research Fellow, University of Leeds; Mrs Esther Kurland, Planning Advisor, Commission for Architecture and the Built Environment; Dr Louis Levy, Branch Head, Nutrition Policy and Advice, Food Standards Agency; Ms Sue Mabley (to February 2005) Public Health Specialist, Welsh Local Government Association; Dr Harshad Mistri, Lay representative; Mr Andy Ramwell, Director of the Manchester Institute of Sport and Physical Activity, Manchester Metropolitan University; Mrs Tracy Sortwell, Lay representative; Ms Helen Storer, Dietetic Services Manager, Nottingham City Primary Care Trust; Mr Malcolm Ward, Principal Public Health Practitioner, National Public Health Service for Wales; Mrs Mandakini Amin, Health Visitor, Hinckley and Bosworth Primary Care Trust; Ms Jude Cohen, Lay representative; Ms Helen Croker, Clinical Research Dietitian, University College London; Dr Penelope Gibson, Consultant Community Paediatrician, Blackwater Valley and Hart Primary Care Trust; Professor Paul Little, General Practitioner and Professor of Primary Care Research, University of Southampton; Mrs Suzanne Lucas, Consumer representative; Ms Mary O'Kane, Clinical Specialist Dietitian, The General Infirmary at Leeds; Mrs Sara Richards, Practice Nurse, Slough Primary Care Trust; Dr Ken Snider, Public Health Physician, Director, County Durham and Tees Valley Public Health Network; Professor John Wilding, Professor of Medicine and Honorary Consultant, University Hospital Aintree, University of Liverpool

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All Guideline Development Group (GDG) members made a formal "Declaration of Interests" at the start of the guideline development and provided updates throughout the development process.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) format from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. 11 Strand, London, WC2N 5HR.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Obesity. Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children NICE guideline (Clinical guideline 43). London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Dec. 84 p. Electronic copies: Available in Portable Document Format (PDF) and Microsoft (MS) Word Format from the National Institute for Health and Clinical Excellence (NICE) Web site.
- Obesity. Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Quick reference guide 1: for local authorities, schools and early years providers, workplaces and the public. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Dec. 15 p. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Obesity. Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Quick reference guide 2 for NHS. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Dec. 27 p. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Obesity. Guide to resources to support implementation. 2006 Dec. 18 p. Electronic copies: Available in Microsoft (MS) Word format from the NICE Web site.
- Obesity. Costing report. Implementing NICE guidance in England. 2006 Dec. 39 p. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Obesity. Costing template. Implementing NICE guidance in England. 2007 Feb. Various p. Electronic copies: Available in Microsoft (MS) Excel Format from the NICE Web site.
- Obesity. Audit criteria. 2006 Dec. 21 p. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- Obesity. Presenter slides. Implementing NICE guidance. 2006 Dec. 45 p. Electronic copies: Available in Portable Document Format (PDF) from the NICE Web site.
- The guidelines manual 2006. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Apr. Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. 11 Strand, London, WC2N 5HR.

PATIENT RESOURCES

The following is available:

- Treatment for people who are overweight or obese. Understanding NICE guidance. Information for people who use NHS and social care services. National Institute for Health and Clinical Excellence (NICE), 2006 Dec. (amended July 2008). 12 p. Available in Portable Document Format (PDF) and in Microsoft (MS) Word Format from the National Institute for Health and Clinical Excellence (NICE) Web site.
- Preventing obesity and staying a healthy weight. Understanding NICE guidance. Information for the public. National Institute for Health and Clinical Excellence (NICE), 2006 Dec. (amended July 2008) 7 p. Available in Portable

Document Format (PDF) and in Microsoft (MS) Word Format from the NICE Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N1145. 11 Strand, London, WC2N 5HR.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This summary was completed by ECRI on March 31, 2009.

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